

REMARKS

Claims 1 – 20 are pending and under consideration in the above-identified patent application.

In the Final Office Action, Claims 1 – 20 were rejected.

In this Amendment, Claims 1, 4, 6, 9, 11, 15, 16 and 20 have been amended, and Claims 14 and 19 have been cancelled. No new matter has been introduced as a result of this Amendment.

Accordingly, Claims 1 – 13, 15 - 18, and 20 are at issue.

I. Objection to the Specification

As requested by the Examiner, Applicants have amended the Title of the application to conform it to the Title listed on the Specification, and Oath and Declaration.

Accordingly, Applicants respectfully requests withdrawal of this title objection.

II. Objection to the Drawings

As requested by the Examiner, Applicants have amended FIGs. 1, 2A-2C, and 3A – 3C to include the legend “Prior Art.” No new matter has been added as a result of this amendment.

Accordingly, Applicants respectfully request withdrawal of this drawing objection.

I. 35 U.S.C. § 102 Rejections of Claims

Claims 1 – 4, 6 – 9, 11 – 14, and 16 – 19 were rejected under 35 U.S.C. § 102(e) as anticipated by Patton et al. (“Patton”) (U.S. Patent No. 6,144, 415).

Although Applicants respectfully traverses the claim rejection, Claims 1, 6, 11 and 16 have been amended to further prosecution, clarify the .

Claim 1, directed to a data combining apparatus, has been amended by incorporating substantive limitations of Claim 4.

In relevant part, Claim 1 recites:

“... a superposing unit for superposing the timing information generated by the timing information generation unit to the first data or the second data;
a timing information detection unit for detecting the superposed timing information in the first data or the second data...”

That is, as illustrates in FIG. 11 and disclosed in at least paragraphs [0132] - [0135], a superposing unit, shown as an adding unit, for example, superpose a timing information S111 to the image data or the graphics S120 and a timing information detection unit 112 detects the superposed timing information in the image data or the graphics included in the superposed data S113. One important advantage of the superposing unit is that no communicating unit for transferring the timing information separately from the data is necessary.

This is clearly unlike Patton.

The Office Action asserts, in the rejection remarks of Claim 4, that Patton discloses the display generator 124 and subsampler 116 which superpose the timing information received from the timing generators 106 and 114, respectively.

Applicants respectfully disagree and submits that Patton fails to teach or suggest a superposing unit for superposing the timing information generated by the timing information generation unit to the first data or the second data. In fact, Patton discloses in column 4, lines 56 - 65, and column 5, lines 18 - 54, that (emphasis added):

"The main timing signal generator 106 also produces a signal indicating when the display device is scanning the portion of the display image in which the PIP inset image is to be located. This signal is supplied to the control input terminal of the multiplexer 108. When the main image is to be displayed, the multiplexer 108 is conditioned to couple the main video processor 103 to its output terminal, and when the PIP image is to be displayed, the multiplexer 108 is conditioned to couple the display generator 124 to its output terminal."

"This PIP image sample sequence from the PIP video processor 113 is subsampled by the quincunx subsampler 116, in response to a timing signal from the PIP timing signal generator 114, and the field memory read and write addresses, in a manner to be described in more detail below. In general, each field of the PIP sample sequence is independently subsampled in the following manner. In the vertical direction, three vertically aligned horizontal PIP samples are filtered to generate a single PIP subsampled sample. In a preferred embodiment, the three vertically aligned samples are averaged. In the horizontal direction the filtered sequence is subsampled at a 6:1 ratio, i.e. keep one sample, discard five samples in a manner to be described in more detail below. The timing of the horizontal subsampling is controlled in a manner described in more detail below to provide quincunx sampling. It is possible to quincunx subsample only a component of the PIP image sample stream. For example, in the preferred embodiment, the luminance component sample stream is quincunx subsampled."

One field or the subsampled PIP samples from the subsampler 116 are stored in the field memory 120. Under the control of the main timing signal generator 106, the display generator 124 extracts the previously stored subsampled samples from the

field memory 120, when the PIP image 4 is being displayed. The display generator 124 performs an inverse function to the subsampling performed in the quincunx subsampler 116 to generate a sample sequence representing the inset auxiliary image. In addition, the display generator 124 includes a digital-to-analog converter if the main video signal 104 is maintained in the analog domain. The output signal from the display generator 124, thus, corresponds to the output signal from the main video processor 104. That is, if the output signal from the main video processor 104 is respective analog luminance and chrominance signals (as in the preferred embodiment), then the output signal from the display generator 124 is also respective analog luminance and chrominance signals.”

That is, Patton teaches that the timing signal generator 106 produces a signal indicating when the display device is scanning the portion of the display image in which the PIP inset image is to be located, in response to a timing signal from the PIP timing signal generator 114, the PIP image sample sequence from the PIP video processor 113 is subsampled by the quincunx subsampler 116, and under the control of the timing signal generator 106, the display generator 124 extracts the previously stored subsampled samples from the field memory 120, when the PIP image 4 is being displayed. As such, the timing generators 106 and 114 are configured to provide timing signals to the display generator 124 and to the subsampler 116, respectively, but the timing signals (information) are not superposed on the outputs of the display generator 124 or of the subsampler 116 (first data or second data), as required by Claim 1.

Because Patton fails to teach or suggest all of the claimed limitations, Claim 1 is patentable over Patton, as are dependent Claims 2 – 4, for at least the same reasons.

Independent Claims 6, 11, and 16, each of which recites the same distinguishable feature as that of Claim 1, are also patentable over Patton, as are their respective claims.

Accordingly, Applicant respectfully requests that this claim rejection be withdrawn.

II. 35 U.S.C. § 103 Obviousness Rejection of Claims

Claims 5, 10, 15 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Patton.

Claims 5, 10, 15 and 20 are dependent on allowable Claims 1, 6, 11 and 16, respectively, and thus also patentable over Patton.

Accordingly, Applicant respectfully requests that these claim rejections be withdrawn.

III. Conclusion

In view of the foregoing, it is submitted that the application is now in condition for allowance with Claims 1 – 13, 15 - 18, and 20 . Notice to that effect is respectfully requested.

If the claims are not found to be in condition for allowance, the Examiner is requested to contact the undersigned to schedule an interview before the mailing of the Office Action. Any communication initiated by this paragraph should be deemed an Applicant initiated interview.

Respectfully submitted,

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By: /Kader Gacem/

Kader Gacem
Patent Agent, Registration No. 52,474
SONNENSCHEIN NATH & ROSENTHAL LLP
P.O. Box 061080
233 S. Wacker Drive
Chicago, Illinois 60606-1080
(312) 876-8000